

## REMARKS

### 35 U.S.C. § 103

The pending claims are directed to methods that detect a megakaryocyte. The methods generate scattergrams from detected fluorescent light and detected scattered light. The scattergram comprises a predetermined megakaryocyte region. Based on the detected fluorescent light and the detected scattered light, the methods detect megakaryocytes, if a population exists, in a predetermined megakaryocyte region.

Sakata (Sysmex Journal International 2000) in view of Houwen (US 5,830,701), Walters et al (Laboratory Hematology 2000), and Ota et al (Haematologia 2000) relate to a nucleated red blood cell (NRBC) measurement. See Sakata, pg. 41. When measurements are carried out, blood is treated with an acidic hypotonic solution containing a cationic active agent. See Sakata, pg. 41 (first full paragraph). The diluents are 'not well suited for electric resistance measurements' and cause 'cell damage' and 'form changes' (See Sakata, pg.

*Table I Hemolytic agent*

Main constituents	Advantages	Disadvantages	Remarks
Hypotonic solution	<ul style="list-style-type: none"><li>• Little damage to leukocytes.</li><li>• Able to maintain cell form and features close to <i>in vivo</i>.</li><li>• RBC are able to be selectively lysed by adjusting the pH of the solution to acidic.</li></ul>	<ul style="list-style-type: none"><li>• RBC are lysed; but since erythrocytic membranes remain as ghosts, it is not well suited for electric resistance measurement method.</li></ul>	<ul style="list-style-type: none"><li>• Popularly used for optical measurement method.</li></ul>
Cationic surface active agents	<ul style="list-style-type: none"><li>• Extremely quick hemolysis reactions.</li><li>• Comparatively small RBC ghosts.</li></ul>	<ul style="list-style-type: none"><li>• Damage to cells is comparatively large and cell form is likely to change.</li></ul>	<ul style="list-style-type: none"><li>• Popularly used for electric resistance measurement method.</li></ul>

43: Table 1). While the proposed combination applies a hypotonic solution that 'is not well suited for electric resistance measurements' and cause 'cell damage' and 'form changes' (See Sakata, pg. 43: Table 1) the combination attempts to identify hematopoietic progenitor cells (HPC) appearance zone through electrical resistance. See Houwen col. 7, 9-14 and 28-32). Not only are the combination of references not 'well suited,' the combination causes *significant cell damage* that calls into question the ability of the proposed system to detect cell populations. *Ibid.* The combination fails to disclose detecting a megakaryocyte region based on a detected fluorescent light and the

detected scattered light (the proposed combination detects through electrical resistance). For these reasons, Applicants respectfully request withdrawal of this rejection.

### **Conclusion**

In view of the remarks above, Applicants respectfully submit that the claimed invention is in condition for allowance. Early notification to such effect is earnestly solicited. If for any reason the Examiner feels that the above Response and Request for Reconsideration does not put the claims in condition to be allowed and that a discussion would be helpful to advance prosecution, it is respectfully requested that the Examiner contact the undersigned attorney directly at (312)-321-4786.

Respectfully submitted,

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